**Aquaporin Inside™ HFFO 2 - Standard Test Setup**

**MODULE SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Aquaporin Inside™ coating:</td>
<td>On lumen side of fiber</td>
</tr>
<tr>
<td>Active area (lumen side/shell side):</td>
<td>2.3 m²</td>
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<tr>
<td>Inner diameter of fibers:</td>
<td>195 µm</td>
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<tr>
<td>Module dimensions:</td>
<td>300 mm long, 70 mm in diameter</td>
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</tbody>
</table>

**Schematic description of the applied single-pass testing method used in testing of 2.3 m² modules:**

FV - flow meter, P - manometer, C - conductivity meter, TMP - transmembrane pressure.

Feed out-flow from the module was calculated and subtracted from the feed in-flow the module in order to calculate flux through the membrane according to eq. 1.

\[
J_w = \frac{Q_{\text{Feed}} - Q_{\text{Concentrate}}}{A} \quad (1)
\]

- \(J_w\) is water flux (L/m²h)
- \(Q_{\text{Feed}}\) is flow rate of feed (L/h)
- \(Q_{\text{Concentrate}}\) is flow rate of concentrate (L/h)
- \(A\) is membrane area (m²)

Conductivity of the concentrated feed solution was measured in order to calculate reverse salt flux according to the eq. 2.

\[
J_s = \frac{Q_{\text{Concentrate}}}{A} \kappa B \quad (2)
\]

- \(J_s\) is reverse salt flux (L/m²h)
- \(Q_{\text{Concentrate}}\) is flow rate of concentrate (L/h)
- \(A\) is membrane area (m²)
- \(\kappa\) is conductivity (µS/cm)
- \(B\) is proportionality coefficient (0.5362 µS/cm per 1 mg/L of NaCl)